

Remarks

Claims 1-23 stand rejected under 35 USC §112 as being indefinite. The Applicants note with appreciation the Examiner's helpful comments concerning specific portions of Claims 1, 8, 9 and 12 in need of correction. The Applicants have accordingly amended Claim 1 to remove the "and/or" language. Claim 22 has been similarly amended even though it is not specifically referred to in the rejection.

Claim 8 has been amended to remove the "0°/90°" language. Claim 9 has been amended to recite a "concavo-convex" shape in place of "concave/convex." Finally, Claim 12 has been amended to change "lattice-like" to "lattice-shaped."

Withdrawal of the rejection of Claims 1-23 under §112 is respectfully requested.

Claims 1-6, 9, 10, 13 and 23 stand rejected under 35 USC §102 as being anticipated by JP '846. The Applicants note with appreciation the Examiner's detailed comments hypothetically applying JP '846 against those claims. The Applicants nonetheless respectfully submit that JP '846 fails to explicitly or implicitly disclose all of the subject matter of those claims. Detailed reasons are set forth below.

A fundamental issue in this rejection is the meaning of the term "panel element." The Applicants respectfully submit that a "panel element" is different from an FRP panel. Thus, the Applicants believe that the rejection is based on a lack of appreciation for what is meant by the Applicants when they refer to a "panel element."

The Applicants enclose Table 1 which provides specific examples of an FRP panel. Table 1 contains specific reference numbers that are shown in the drawings as they relate to specific structure.

The Applicants also enclose Table 2 which provides specific examples of a panel element. Again, specific reference numbers taken from the figures are matched with concrete structure so that an appreciation for what is meant by “panel element” versus an FRP panel can fully be understood.

Although the rejection recites that the Applicants’ FRP panel comprises (a) first FRP layer (2,12), (b) second FRP layer (3, 13), and (c) panel element (1, 11, 31, 41, 51, 61, 71) provided in a space formed between first and second FRP layers as a substance (having a difference in rigidity/difference in strength) different from both FRP layers, this would not be the correct interpretation.

In comparing the first and second FRP layers, the difference in rigidity/difference in strength is provided between both layers. The claims should be thus interpreted. Specifically, a unit combined as a pair of the first and second FRP layers, which is provided with the difference in rigidity/difference in strength relative to the first FRP layer, corresponds to a panel element.

In sharp contrast, JP ‘846 discloses an FRP panel comprising an FRP skin layer and a core material. In comparing two FRP layers forming FRP skin layers, although a structure is disclosed wherein an FRP layer at an outer surface side extends longer than an FRP layer at an inner surface side, the design of the respective FRP layers that would or could provide a difference in rigidity/difference in strength therebetween by comparison of both FRP layers is not disclosed, described, taught or suggested.

JP ‘846 seeks to achieve high rigidity of an FRP panel for automobiles and to easily perform a terminal treatment as discussed in paragraph [0006]. Further, JP ‘846 describes an effect wherein, by extending the FRP layer at an outer surface side in an outward direction as described above, even when an external force is applied to the FRP panel, delamination at the

interface of the FRP skin layer hardly occurs, and the structure at the terminal portion can be stably maintained as discussed in paragraph [0021].

In sharp contrast, the Applicants provide an FRP panel for an automobile with an excellent crushable structure for impact absorption, in particular, from the viewpoint of protecting pedestrians, suppressing impacts to the pedestrian by properly absorbing the impact to the pedestrian at the time of collision as discussed at paragraph [0005] of the Applicants' Specification.

Therefore, even if both structures of JP '846 and the Applicants appear to be similar in cross-sectional views, the characteristics of both are quite different from each other. In other words, there is no difference in rigidity and no difference in strength provided between the first FRP layer on the first surface side and the second FRP layer on the second surface side opposite the side of the first surface in JP '846. The Applicants, however, specifically claim that difference. Withdrawal of the §102 rejection is respectfully requested.

Claims 7, 8 and 18-22 stand rejected under 35 USC §103 as being obvious over JP '846. The Applicants respectfully submit that JP '846 is also inapplicable to those claims. Not only does JP '846 fail to explicitly or implicitly disclose the difference in rigidity and/or the difference in strength provided between the first FRP layer on the first surface side and the second FRP layer on the second surface side, there are no teachings in JP '846 that would lead one skilled in the art to provide such differences. In fact, the Applicants respectfully submit that the English translation of JP '846 repeatedly refers to opposed layers having a core material between them as being equivalent sheets or equivalent layers. As such, there is no teaching in JP '846 to provide materials that would result in a difference in rigidity or a difference in strength between the first FRP layer on the first surface side and the second FRP layer on the second surface side and,

therefore, there is inherently no teaching as to how to achieve that difference. Withdrawal of that rejection is also respectfully requested.

Claims 11-17 stand rejected under 35 USC §102 over the combination of Fujimoto with JP '846. The Applicants respectfully submit that Fujimoto fails to provide disclosure, teachings or suggestions that would cure the deficiencies set forth above with respect to JP '846. Thus, even if one skilled in the art would hypothetically combine Fujimoto with JP '846, the FRP panel resulting from that combination would still be different from the subject matter of Claims 11-17. Withdrawal of that rejection is also respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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Table 1: concrete examples of FRP panel

An FRP panel
1,11: bonnet
51,57,161,164,166:FRP panel
65,86,97,109,121,133,135: FRP panel for an automobile with a sandwich structure
69,81,92,104,116,128,140,152: FRP single plate
91,102,114,126,138,150: FRP panel for an automobile with a hollow structure
181,186: FRP plate as an FRP panel for an automobile
190,193,195,197,199: FRP panel for an automobile with a sandwich structure
201,204,206,209: FRP panel for an automobile as a bonnet
231,234,240,250: bonnet as an FRP panel for an automobile having an FRP laminated structure

Table 2: concrete examples of Panel element

Panel element	
FRP layer	Others (core, stiffener, portion, resin layer, etc.)
2: first (surface-side) FRP layer (rigidity: sma 11)	4,14: core material 23,33: core material 34: stiffener
3: second (back surface-side) FRP layer (rigidity: large)	54,60,64,85,96,108,120,132,144: core material 55,61,70,93,98,103,129,134,141,146
12: first (surface-side) FRP layer (rigidity: large)	,151,153: concave portion 66,82,87,92,105,115,117,122,127,171: convex portion
13: second (back surface-side) FRP layer (rigidity: small)	67: standard portion 68: reinforcing fiber substrate 71,154: charged material (filler)
21,31: low-rigidity FRP layer	90,101,113,125,137,149: hollow portion
22,32: high-rigidity FRP layer	162,163,165: concave portion or convex portion
41: low-rigidity surface-side FRP layer	182: plane-like structural portion
42: high-rigidity back surface-side FRP layer	183: reinforcing fiber substrate 183a: reinforcing fiber substrate having a discontinuous portion
52,53,58,59,62,63,83,84,88,89,94,95,99,100,106,107,111,112,118,119,123,124,130,131,135,136,142,143,147,148:FRP layer	184,185,191,192,194,196,198,202,203,205, 208: discontinuous portion 189: core material 233,236: resin layer as a high breaking elongation layer
187: surface-side FRP layer	241: resin net as a high breaking elongation layer
188: back surface-side FRP layer	244: frictionally fixed portion
232: FRP plate	251: fiber substrate non-impregnated with resin as a high breaking elongation layer
235,242,243,252,253: FRP	254: adhesive portion